```
=> e bisen prakash singh/au
E1            2      BISEN PRAKASH/AU
E2           54      BISEN PRAKASH S/AU
E3           11 --> BISEN PRAKASH SINGH/AU
E4            2      BISEN PS/AU
E5            1      BISEN R/AU
E6           17      BISEN R K/AU
E7           10      BISEN R S/AU
E8            1      BISEN RUTH/AU
E9            1      BISEN S N/AU
E10           3      BISEN S P/AU
E11          48      BISEN S S/AU
E12           1      BISEN SUNIL/AU

=> s e1-e3
L1           67 ("BISEN PRAKASH"/AU OR "BISEN PRAKASH S"/AU OR "BISEN PRAKASH
                SINGH"/AU)

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2           33 DUP REM L1 (34 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 33 ANSWERS - CONTINUE? Y/(N):y

L2   ANSWER 1 OF 33  BIOSIS  COPYRIGHT (c) 2007 The Thomson Corporation  on STN
     DUPLICATE 1
AN   2007:435968  BIOSIS
DN   PREV200700434096
TI   Iron mediated regulation of growth and siderophore production in a
     diazotrophic cyanobacterium Anabaena cylindrica.
AU   Raghuvanshi, Ruchika; Singh, Surendra [Reprint Author]; Bisen,
     Prakash Singh
CS   Jiwaji Univ, Sch Studies Microbiol, Gwalior 474011, India
     surendrasinghg@yahoo.com
SO   Indian Journal of Experimental Biology, (JUN 2007) Vol. 45, No. 6, pp.
     563-567.
     CODEN: IJEBA6. ISSN: 0019-5189.
DT   Article
LA   English
ED   Entered STN: 15 Aug 2007
     Last Updated on STN: 15 Aug 2007
AB   Iron mediated regulation of growth and siderophore production has been
     studied in a diazotrophic cyanobacterium Anabaena cylindrica.
     Iron-starved cells of A. cylindrica exhibited reduced growth (30%) when
     the cells were growing under N-2-fixing conditions.  In contrast, NO3-,
     NO2-, NH4+ and urea grown cells exhibited almost 50% reduction in their
     growth in the absence of iron as compared to their respective counterparts
     cultured in the presence of iron.  However, at 60 PM of iron, A.
     cylindrica cells exhibited almost equal growth regardless of the nitrogen
     source available.  Siderophore production in A. cylindrica was started
     after day 2(nd) of the cell growth and attained its optimal level on day
     5(th) when the cells were at their mid-log phase.  No siderophore
     production was, however, recorded on day 2(nd) at all the concentrations
     of iron tested.  The production of siderophore in A. cylindrica further
     increased with increase in iron concentration and attained its optimum
     level on day 5(th) at 60 mu.M iron.  A. cylindrica cells took at least 3
     days for initiation of siderophore production and produced about 60%
     siderophore on day 5(th) even under iron-starved condition.  A. cylindrica
     produced dihydroxamate type of siderophore.

L2   ANSWER 2 OF 33  CAPLUS  COPYRIGHT 2007 ACS on STN DUPLICATE 2
AN   2007:1071380  CAPLUS
TI   Physiological and Biochemical Alterations in a Diazotrophic Cyanobacterium
```

Anabaena cylindrica Under NaCl Stress

AU Bhadauriya, Pratiksha; Gupta, Radha; Singh, Surendra; Bisen, Prakash Singh

CS Department of Biotechnology, Madhav Institute of Technology & Science, Gwalior, 474001, India

SO Current Microbiology (2007), 55(4), 334-338
CODEN: CUMIDD; ISSN: 0343-8651

PB Springer

DT Journal

LA English

AB Growth, morphol. variation, and liquid chromatog.-photodiode array detection-mass spectrometric anal. of pigments have been studied in a diazotrophic cyanobacterium Anabaena cylindrica in response to NaCl stress. The chlorophyll and cellular protein contents increased initially in response to 50 mM NaCl. Further increment in NaCl concentration, however, resulted in a significant decrease in both chlorophyll and cellular protein. A. cylindrica cells subjected to NaCl stress also showed morphol. variations by having alteration in their size and volume A. cylindrica cells subjected to NaCl stress also exhibited altered plastoquinone and chlorophyll-a (chl a) levels in comparison to its NaCl-untreated counterpart. Furthermore, a relative increase in plastoquinone level and a subsequent decrease in chl a level were recorded in NaCl adapted cells of A. cylindrica in response to NaCl stress. These results suggest that owing to adaptation various morphol., physiol., and biochem. changes occur in the cyanobacterium A. cylindrica in response to NaCl stress.

L2 ANSWER 3 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 3

AN 2007:385701 BIOSIS

DN PREV200700390349

TI Modern approaches to a rapid diagnosis of tuberculosis: Promises and challenges ahead.

AU Tiwari, Ram Pramod; Hattikudur, Narendra S.; Bharmal, Ramesh N.; Kartikeyan, S.; Deshmukh, Neeta M.; Bisen, Prakash S. [Reprint Author]

CS Seeding Acad Design Technol and Management, Inst Biotechnol and Allied Sci, Jaipur 302004, Rajasthan, India
psbisen@gmail.com

SO Tuberculosis (Amsterdam), (MAY 2007) Vol. 87, No. 3, pp. 193-201.
ISSN: 1472-9792.

DT Article
General Review; (Literature Review)

LA English

ED Entered STN: 11 Jul 2007
Last Updated on STN: 11 Jul 2007

AB The limitations of the conventional methods for diagnosing tuberculosis have spurred multi-faceted research activities in this field throughout the world. Chromatographic methods appear promising but may not be widely available in the developing countries. Immuno-diagnostic methods using combinations ('' cocktails '') of antigens have high sensitivity and specificity and can easily be applied in the peripheral laboratories and in the field settings. Though expensive, molecular methods for diagnosis of tuberculosis have advantages of speed, sensitivity, and specificity. Adequate training of the eligible personnels in molecular methods and prevention of laboratory-dependent contamination may help reduce false positive results. Although, there are no clear guidelines, so far on how to make out the best from the gene amplification methods, yet their use may be encouraged with adequate quality controls, because of the inherent ingenuity and promises of these methods. Phage-based molecular methods provide rapid results in susceptibility tests for anti-tubercular drugs. In future, many sophisticated techniques are expected to hit the market for a rapid diagnosis of tuberculosis. In the developing countries, it is necessary to evaluate availability of suitable infrastructure and trained

personnels before adopting modern diagnostic methods. (C) 2006 Elsevier Ltd. All rights reserved.

L2 ANSWER 4 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 4
AN 2007:179489 BIOSIS
DN PREV200700149065
TI A synthetic gag p24 epitope chemically coupled to BSA through a decaalanine peptide enhances HIV type 1 serodiagnostic ability by several folds.
AU Singh, Sanjay K.; Shah, Nand K.; Bisen, Prakash S. [Reprint Author]
CS Seedling Acad Design Technol and Management, Jaipur 302004, Rajasthan, India
prakash_bisen@hotmail.com
SO AIDS Research and Human Retroviruses, (JAN 2007) Vol. 23, No. 1, pp. 153-160.
CODEN: ARHRE7. ISSN: 0889-2229.
DT Article
LA English
ED Entered STN: 7 Mar 2007
Last Updated on STN: 7 Mar 2007
AB p24 is an immunodominant gag core protein of HIV-1. The synthetic immunodominant epitope of p24 and the recombinant p24 show poor immunoreactivity and specificity, respectively. Their application is, therefore, severely limited in the serodiagnosis of HIV-1, although it is an important marker for early diagnosis. These limitations have been overcome by conjugating the synthetic p24 to BSA through a decaalanine peptide spacer. The engineered p24 shows about 5-fold more efficient immunoreactivity than the synthetic p24, and, at the same time, shows a several fold reduction in nonspecific cross-reactivity as compared to recombinant p24. Our strategy to conjugate the p24 peptide epitope to BSA worked well as a consistent and reliable immunodiagnostic marker. This strategy may also prove useful for the diagnosis of other diseases.

L2 ANSWER 5 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2007:1008875 CAPLUS
TI Iron-mediated metabolic regulations in a diazotrophic cyanobacterium Anabaena cylindrica
AU Raghuvanshi, Ruchika; Singh, Surendra; Saxena, Rishi Kumar; Bisen, Prakash Singh
CS School of Studies in Microbiology, Jiwaji University, Gwalior, 474 011, India
SO Physiology and Molecular Biology of Plants (2007), 13(2), 143-154
CODEN: PMBPFY; ISSN: 0971-5894
PB Prof. H. S. Srivastava Foundation for Science and Society
DT Journal
LA English
AB Iron-induced changes in growth, photosynthetic activity, CO2 fixation, heterocyst differentiation, N2-fixation, uptake of nitrate, nitrite, ammonium and urea, nitrate reductase (NR), nitrite reductase (NiR), urease and glutamine synthetase (GS) activities were studied in a diazotrophic cyanobacterium Anabaena cylindrica. Iron at 60 μM concentration supported the maximum growth, photosystem I (PS I), photosystem II (PS II), CO2 fixation, heterocyst differentiation, nitrogenase, uptake of nitrate, nitrite, ammonium and urea, NR, NiR, urease and GS activities in the organism. Higher concentration of iron, however, inhibited these processes. Chllorophyll a
and PS II activities were more sensitive to iron than the protein and PS I activity.
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 6 OF 33 MEDLINE on STN

AN 2007246691 MEDLINE
DN PubMed ID: 17417972
TI Genetic affinities between endogamous and inbreeding populations of Uttar Pradesh.
AU Khan Faisal; Pandey Atul Kumar; Tripathi Manorma; Talwar Sudha; Bisen Prakash S; Borkar Minal; Agrawal Suraksha
CS Department of Medical Genetics, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow (UP) India. faisal@sgpgi.ac.in. <faisal@sgpgi.ac.in>
SO BMC genetics, (2007) Vol. 8, No. 1, pp. 12. Electronic Publication: 2007-04-07.
Journal code: 100966978. E-ISSN: 1471-2156.
CY England: United Kingdom
DT (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LA English
FS Priority Journals
EM 200704
ED Entered STN: 26 Apr 2007
Last Updated on STN: 28 Apr 2007
Entered Medline: 27 Apr 2007
AB BACKGROUND: India has experienced several waves of migration since the Middle Paleolithic. It is believed that the initial demic movement into India was from Africa along the southern coastal route, approximately 60,000-85,000 years before present (ybp). It has also been reported that there were two other major colonization which included eastward diffusion of Neolithic farmers (Elamo Dravidians) from Middle East sometime between 10,000 and 7,000 ybp and a southern dispersal of Indo Europeans from Central Asia 3,000 ybp. Mongol entry during the thirteenth century A.D. as well as some possible minor incursions from South China 50,000 to 60,000 ybp may have also contributed to cultural, linguistic and genetic diversity in India. Therefore, the genetic affinity and relationship of Indians with other world populations and also within India are often contested. In the present study, we have attempted to offer a fresh and immaculate interpretation on the genetic relationships of different North Indian populations with other Indian and world populations. RESULTS: We have first genotyped 20 tetra-nucleotide STR markers among 1800 north Indian samples of nine endogamous populations belonging to three different socio-cultural strata. Genetic distances (Nei's DA and Reynold's Fst) were calculated among the nine studied populations, Caucasians and East Asians. This analysis was based upon the allelic profile of 20 STR markers to assess the genetic similarity and differences of the north Indian populations. North Indians showed a stronger genetic relationship with the Europeans (DA 0.0341 and Fst 0.0119) as compared to the Asians (DA 0.1694 and Fst - 0.0718). The upper caste Brahmins and Muslims were closest to Caucasians while middle caste populations were closer to Asians. Finally, three phylogenetic assessments based on two different NJ and ML phylogenetic methods and PC plot analysis were carried out using the same panel of 20 STR markers and 20 geo-ethnic populations. The three phylogenetic assessments revealed that north Indians are clustering with Caucasians. CONCLUSION: The genetic affinities of Indians and that of different caste groups towards Caucasians or East Asians is distributed in a cline where geographically north Indians and both upper caste and Muslim populations are genetically closer to the Caucasians.

L2 ANSWER 7 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
AN 2007:391165 BIOSIS
DN PREV200700392276
TI Genetic affinities between endogamous and inbreeding populations of Uttar Pradesh.
AU Khan, Faisal; Pandey, Atul Kumar; Tripathi, Manorma; Talwar, Sudha; Bisen, Prakash S.; Borkar, Minal; Agrawal, Suraksha [Reprint Author]

CS Sanjay Gandhi Postgrad Inst Med Sci, Dept Med Genet, Raebareli Rd, Lucknow 226014, Uttar Pradesh, India
faisal@sgpgi.ac.in; atul@sgpgi.ac.in; manorma@sgpgi.ac.in; sudha@sgpgi.ac.in; bhasin@sgpgi.ac.in; minal@sgpgi.ac.in; suraksha@sgpgi.ac.in
SO BMC Genetics, (APR 7 2007) Vol. 8, pp. Article No.: 12.
ISSN: 1471-2156.
DT Article
LA English
ED Entered STN: 18 Jul 2007
Last Updated on STN: 18 Jul 2007
AB Background: India has experienced several waves of migration since the Middle Paleolithic. It is believed that the initial demic movement into India was from Africa along the southern coastal route, approximately 60,000 - 85,000 years before present (ybp). It has also been reported that there were two other major colonization which included eastward diffusion of Neolithic farmers (Elamo Dravidians) from Middle East sometime between 10,000 and 7,000 ybp and a southern dispersal of Indo Europeans from Central Asia 3,000 ybp. Mongol entry during the thirteenth century A. D. as well as some possible minor incursions from South China 50,000 to 60,000 ybp may have also contributed to cultural, linguistic and genetic diversity in India. Therefore, the genetic affinity and relationship of Indians with other world populations and also within India are often contested. In the present study, we have attempted to offer a fresh and immaculate interpretation on the genetic relationships of different North Indian populations with other Indian and world populations.Results: We have first genotyped 20 tetra- nucleotide STR markers among 1800 north Indian samples of nine endogamous populations belonging to three different socio- cultural strata. Genetic distances (Nei's DA and Reynold's Fst) were calculated among the nine studied populations, Caucasians and East Asians. This analysis was based upon the allelic profile of 20 STR markers to assess the genetic similarity and differences of the north Indian populations. North Indians showed a stronger genetic relationship with the Europeans (D-A 0.0341 and F-st 0.0119) as compared to the Asians (D-A 0.1694 and F-st - 0.0718). The upper caste Brahmins and Muslims were closest to Caucasians while middle caste populations were closer to Asians. Finally, three phylogenetic assessments based on two different NJ and ML phylogenetic methods and PC plot analysis were carried out using the same panel of 20 STR markers and 20 geo- ethnic populations. The three phylogenetic assessments revealed that north Indians are clustering with Caucasians.Conclusion: The genetic affinities of Indians and that of different caste groups towards Caucasians or East Asians is distributed in a cline where geographically north Indians and both upper caste and Muslim populations are genetically closer to the Caucasians.

L2 ANSWER 8 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 5
AN 2006:362891 BIOSIS
DN PREV200600365341
TI Adjuvanticity of stealth liposornes on the immunogenicity of synthetic gp41 epitope of HIV-1.
AU Singh, Sanjay K.; Bisen, Prakash S. [Reprint Author]
CS Seedling Acad Design Technol and Management, Jaipur 302004, Rajasthan, India
psbisen@gmail.com
SO Vaccine, (MAY 8 2006) Vol. 24, No. 19, pp. 4161-4166.
CODEN: VACCDE. ISSN: 0264-410X.
DT Article
LA English
ED Entered STN: 19 Jul 2006
Last Updated on STN: 19 Jul 2006
AB Present study aims to enhance the efficacy of liposomes as an adjuvant by steric protection and strengthen the path of vaccine research. PEG

grafted liposomes carrying epitopes on their surface showed enhanced adjuvanticity than liposomes carrying epitopes for elicitation and prolongation of immune response to an antigenic epitope of gp41, a transmembrane protein of HIV-1. The multiples of epitope were incorporated onto the surface of liposomes by conjugating them with phosphatidylethanolamine that was used in the formulation of liposomes at an optimized ratio. Furthermore, the liposomes carrying epitopes on their surface were sterically protected by shielding with methoxypoly(ethylene glycol), mass 20 kDa. Methoxy-poly(ethylene glycol) was activated to its electrophilic N-succinimide carbonate derivative, methoxy-poly(ethylene glycol)-N-succinimide carbonate, that formed a urethane linkage with the amino group of phosphatidylethanolamine. The epitope was covalently coupled to phosphatidylethanolamine through an amide bond between the -COOH group of the epitope and -NH2 group of phosphatidylethanolamine under the catalysis of 1-ethyl-3-(3-dimethylaminopropy-1)-carbodiimide. PEG grafted epitopes carrying liposomes showed about two times higher immune response and prolonged persistence of antibodies than that of liposomes carrying epitopes without PEG moieties. (c) 2006 Published by Elsevier Ltd.

L2 ANSWER 9 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 6
AN 2006:647549 BIOSIS
DN PREV200600633176
TI Iron induced metabolic changes in the diazotrophic cyanobacterium Anabaena PCC 7120.
AU Saxena, Rishi Kumar; Raghuvanshi, Ruchika; Singh, Surendra [Reprint Author]; Bisen, Prakash Singh
CS Jiwaji Univ, Sch Studies Microbiol, Gwalior 474011, India
surendrasinghg@yahoo.com
SO Indian Journal of Experimental Biology, (OCT 2006) Vol. 44, No. 10, pp. 849-851.
CODEN: IJEBA6. ISSN: 0019-5189.
DT Article
LA English
ED Entered STN: 22 Nov 2006
Last Updated on STN: 22 Nov 2006
AB Iron induced changes in growth, N-2-fixation, CO2 fixation and photosynthetic activity were studied in a diazotrophic cyanobacterium Anabaena PCC 7120. Iron at 50 mu M concentration supported the maximum growth, heterocyst frequency, CO2 fixation, photosystem I (PS I), photosystem II (PS II) and nitrogenase activities in the organism. Higher concentration of iron inhibited these processes. Chl a and PS II activities were more sensitive to iron than the protein and PS activity.

L2 ANSWER 10 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 7
AN 2007:516942 CAPLUS
TI Allele frequency profile of three STR loci in nine North Indian populations
AU Khan, Faisal; Pandey, Atul; Bisen, Prakash S.; Agrawal, Suraksha
CS Department of Medical Genetics, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, 226014, India
SO Journal of Forensic Sciences (2006), 51(3), 706-707
CODEN: JFSCAS; ISSN: 0022-1198
PB Blackwell Publishing, Inc.
DT Journal
LA English
AB The allele frequency distribution of three STR loci in nine North Indian populations was analyzed. Whole blood obtained by venipuncture was collected in EDTA vacutainer tubes from individuals residing in different parts of Uttar Pradesh, India. The DNA was extracted by the phenol-chloroform method and purified by ethanol precipitation PCR amplification was performed for
three autosomal STR loci, namely D5S818, D7S820, and FGA, using flanking

primers (one of the primer for each loci was labeled with fluorescent dye Ned, VIC and 6-FAM, resp.) described by Parez-Lezaun et al. The amplified products were separated by capillary electrophoresis on an ABI 310 genetic fragment analyzer. Genotyping was performed with the help of 500-ROX-size standard using GeneScan v. 3.4 and Genotyper v. 1 software. The data were analyzed using Popgene and Cervus software.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 11 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 8

AN 2007:44556 BIOSIS

DN PREV200700039022

TI Does sphingosine 1-phosphate play a protective role in the course of pulmonary tuberculosis?.

AU Garg, Sanjay K.; Santucci, Marilina B.; Panitti, Miriam; Pucillo, Leo; Bocchino, Marialuisa; Okajima, Fumikazu; Bisen, Prakash S.; Saltini, Cesare; Fraziano, Maurizio [Reprint Author]

CS Univ Roma Tor Vergata, Dept Biol, Via Ric Sci, I-00133 Rome, Italy
fraziano@bio.uniroma2.it

SO Clinical Immunology (Orlando), (DEC 2006) Vol. 121, No. 3, pp. 260-264.
ISSN: 1521-6616.

DT Article

LA English

ED Entered STN: 3 Jan 2007
Last Updated on STN: 3 Jan 2007

AB Sphingosine 1-phosphate (S1P) has recently been reported to induce antimycobacterial activity in vitro and in a mouse model of in vivo Mycobacterium tuberculosis infection. However, its rote in the course of pulmonary tuberculosis in humans is still not known. This study shows that S1P levels in airway surface fluid of tuberculosis (TB) patients are significantly less than those observed in non-TB control patients. Moreover, the in vitro stimulation of bronchoalveolar lavage cells coming from TB patients with S1P significantly reduces intracellular growth of endogenous mycobacterial isolates. These results show that, in the course of pulmonary TB, airway epithelial. fluid-associated S1P may play a protective role in the containment of intracellular mycobacterial growth and that its decrease may represent a novel pathogenic mechanism through which M. tuberculosis favors its replication. (c) 2006 Elsevier Inc. All rights reserved.

L2 ANSWER 12 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2006:195422 CAPLUS

DN 145:158718

TI Tumor control by manipulation of the human anti-apoptotic Survivin gene

AU Khan, Zakir; Bhadouria, Pratiksha; Gupta, Radha; Bisen, Prakash S.

CS Department of Biotechnology, J.C. Bose Institute of Life Sciences, Bundelkhand University, Jhansi, India

SO Current Cancer Therapy Reviews (2006), 2(1), 73-79
CODEN: CCTRCG; ISSN: 1573-3947

PB Bentham Science Publishers Ltd.

DT Journal; General Review

LA English

AB A review. Survivin is a relatively unique member of the inhibitor of apoptosis protein (IAP) family. It contains a single baculovirus IAP repeat (BIR) domain. It is involved in the control of cell cycle and inhibition of apoptosis. Survivin is of interest because it is specifically up-regulated in cancer cells and completely down-regulated and undetectable in normal adult tissues. Thus, survivin has proved to be a promising therapeutic target for normal anti-cancer therapy. Survivin protects the fast dividing tumor cells against default apoptosis to facilitate aberrant mitosis. Down-regulation of survivin with multiple approaches, suppress tumor progression and induce apoptosis on its own or in combination with chemotherapy and radiotherapy.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 13 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:962506 CAPLUS
DN 143:225616
TI A diagnostic kit for detecting pulmonary and extra pulmonary
IN Bisen, Prakash Singh; Tiwary, Ram Pramod
PA Department of Biotechnology, India; Madhav Institute of Technology and Science
SO PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005080987	A1	20050901	WO 2005-IN63	20050221
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1716417	A1	20061102	EP 2005-718967	20050221
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
	JP 2007523342	T	20070816	JP 2006-553765	20050221
PRAI	IN 2004-DE226	A	20040219		
	WO 2005-IN63	W	20050221		

AB A diagnostic kit for detecting pulmonary and extra pulmonary tuberculosis comprising a test card "TB Screen" coated with a hydrophobic material, antigen suspension, pos. and neg. control.
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 14 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 9
AN 2005:464785 BIOSIS
DN PREV200510248351
TI Glycolipids of Mycobacterium tuberculosis strain H37Rv are potential serological markers for diagnosis of active tuberculosis.
AU Tiwari, R. P.; Tiwari, Dileep; Garg, Sanjay K.; Chandra, Ramesh; Bisen, Prakash S. [Reprint Author]
CS Bundelkhand Univ, JC Bose Inst Life Sci, Dept Biotechnol, Jhansi 284218, Uttar Pradesh, India
prakash_bisen@hotmail.com
SO Clinical and Diagnostic Laboratory Immunology, (MAR 2005) Vol. 12, No. 3, pp. 465-473.
ISSN: 1071-412X.
DT Article
LA English
ED Entered STN: 9 Nov 2005
Last Updated on STN: 9 Nov 2005
AB A simple and cost-effective diagnostic tool (TB Screen Test) for the screening of patients with pulmonary and extrapulmonary tuberculosis and for differentiation of those individuals from individuals without tuberculosis, other common infections, and healthy controls has been developed. The serological responses of purified mycobacterial glycolipid

antigens were examined by a liposome agglutination assay. The assay was able to detect very low antiglycolipid antibody concentrations in the infected individuals. The sera from the tuberculosis patient group had significantly higher concentrations of antiglycolipid antibody than the sera from uninfected control subjects, with 94% sensitivity and 98.3% specificity. Glycolipids of Mycobacterium tuberculosis H37Rv antigens were isolated, purified, and characterized. After interchelation with liposome particles, these purified antigens specifically bound to the antiglycolipid antibodies present in the sera of patients with tuberculosis, resulting in the formation of a blue agglutination. This protocol clearly differentiates healthy controls and M. bovis BCG-vaccinated subjects from those with active tuberculosis. The resultant diagnostic tool, the TB Screen Test, is more economical and rapid (4 min) than other currently available products and can be used for the mass screening of a heavily afflicted population.

L2 ANSWER 15 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:755244 CAPLUS
DN 141:325026
TI Tuberculosis therapeutics: Past achievements, present road-blocks and future perspectives
AU Garg, Sanjay K.; Santucci, Marilina B.; Seghrouchni, Fouad; Saltini, Cesare; Bisen, Prakash S.; Colizzi, Vittorio; Fraziano, Maurizio
CS Department of Biology, University of "Tor Vergata", Rome, Italy
SO Letters in Drug Design & Discovery (2004), 1(4), 314-328
CODEN: LDDDAW; ISSN: 1570-1808
PB Bentham Science Publishers Ltd.
DT Journal; General Review
LA English
AB A review. Tuberculosis represents the main cause of mortality due to a single pathogen infection. Advances in anti-tuberculosis therapies are urgently required both for the treatment of the 8-12 million new cases of tuberculosis leading to 2 million deaths each year, as well as for the 2 billion individuals already infected with M. tuberculosis, who are at risk of developing the disease. The present review summarizes the actually available information about currently existing therapies and perspectives for future innovative therapeutic approaches.
RE.CNT 176 THERE ARE 176 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 16 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 10
AN 2004:37606 BIOSIS
DN PREV200400038179
TI Analysis of the shotgun expression library of the Mycobacterium tuberculosis genome for immunodominant polypeptides: Potential use in serodiagnosis.
AU Bisen, Prakash S. [Reprint Author]; Garg, Sanjay K.; Tiwari, Ram P.; Tagore, P. Ravindra Nath; Chandra, Ramesh; Karnik, Rucha; Thaker, Nimesh; Desai, Nirav; Ghosh, P. K.; Fraziano, Maurizio; Colizzi, Vittorio
CS Madhav Institute of Technology and Science, Gwalior, MP, 474 005, India
prakash_bisen@hotmail.com
SO Clinical and Diagnostic Laboratory Immunology, (November 2003) Vol. 10, No. 6, pp. 1051-1058. print.
ISSN: 1071-412X (ISSN print).
DT Article
LA English
ED Entered STN: 7 Jan 2004
Last Updated on STN: 7 Jan 2004
AB A recombinant DNA strategy was applied to analyze and screen the shotgun expression library from a clinically confirmed local virulent isolate of Mycobacterium tuberculosis with sera from tuberculosis patients, which led to expression and purification of highly immunoreactive and specific mycobacterial antigens expressed during the course of active disease which

could be of diagnostic significance. An enzyme-linked immunoassay for diagnosis of tuberculosis was devised by using a shotgun immunoexpression library in the lambdagt11 vector. DNA from a virulent M. tuberculosis patient isolate (TBW-33) confirmed with the BACTEC 460 system was sheared and expressed to generate shotgun polypeptides. beta-Galactosidase fusion proteins capable of demarcating active tuberculosis infections from Mycobacterium bovis BCG-vaccinated healthy subjects or people harboring environmental mycobacteria were selected by comparative immunoreactivity studies. Promising mycobacterial DNA cassettes were subcloned and expressed into the glutathione S-transferase (GST) fusion vector pGEX-5X-1 with a strong tac promoter and were expressed in Escherichia coli BL21. These fusion proteins were severed at a built-in factor Xa recognition site to separate the GST tags and were utilized in an indirect enzyme-linked immunoassay for serodiagnosis of patients with active tuberculosis. The system offered a clear demarcation between BCG-vaccinated healthy subjects and patients with active tuberculosis and proved to be effective in detecting pulmonary as well as extrapulmonary tuberculosis, with an overall sensitivity of 84.33% and an overall specificity of 93.62%.

L2 ANSWER 17 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 11
AN 2003:821208 CAPLUS
DN 140:53989
TI Diagnosis of tuberculosis: available technologies, limitations, and possibilities
AU Garg, Sanjay K.; Tiwari, R. P.; Tiwari, Dileep; Singh, Rupinder; Malhotra, Dolly; Ramnani, V. K.; Prasad, G. B. K. S.; Chandra, Ramesh; Fraziano, M.; Colizzi, V.; Bisen, Prakash S.
CS Department of Biotechnology, Madhav Institute of Technology and Science, Gwalior, India
SO Journal of Clinical Laboratory Analysis (2003), 17(5), 155-163
CODEN: JCANEM; ISSN: 0887-8013
PB Wiley-Liss, Inc.
DT Journal; General Review
LA English
AB A review. Rapid diagnosis and treatment are important for preventing transmission of Mycobacterium tuberculosis. However, the diagnosis of tuberculosis continues to pose serious problems, mainly because of difficulties in differentiating between patients with active tuberculosis and those with healed lesions, normal Mycobacterium bovis BCG (Bacillus Calmette Guerin) vaccinated individuals, and unvaccinated Manteux positives. Physicians still rely on conventional methods such as Ziehl-Neelsen (ZN) staining, fluorochrome staining, sputum culture, gastric lavage, and other non-traditional methods. Although the tuberculin test has aided in the diagnosis of tuberculosis for more than 85 yr, its interpretation is difficult because sensitization with nontuberculous mycobacteria leads to false-pos. tests. There have been numerous unsuccessful attempts to develop clin. useful serodiagnostic kits for tuberculosis. A number of proteinaceous and nonprotein antigens (such as acyltrehaloses and phenolglycolipids) have been explored from time to time for the development of such assays but they have not proved to be clin. useful. It has been difficult to develop an ELISA utilizing a suitable antigen because M. tuberculosis shares a large number of antigenic proteins with other microorganisms that may or may not be pathogenic. With the advent of mol. biol. techniques, there have been significant advances in nucleic acid-based amplification and hybridization, which are helping to rectify existing flaws in the diagnosis of tuberculosis. The detection of mycobacterial DNA in clin. samples by polymerase chain reaction (PCR) is a promising approach for the rapid diagnosis of tuberculous infection. However, the PCR results must be corrected for the presence of inhibitors as well as for DNA contamination. In the modern era of genetics, marked by proteomics and genomics, the day is not far off when DNA chip-based hybridization assays will instantly reveal mycobacterial infections.
RE.CNT 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 18 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 12
AN 2003:45931 BIOSIS
DN PREV200300045931
TI Regulation of potassium uptake in the sodium-resistant (NaClr) and thalium-resistant (TlClr) mutant strain of diazotrophic cyanobacterium Anabaena variabilis.
AU Chauhan, Vinay S. [Reprint Author]; Singh, Bhanumati; Singh, Surendra; Bisen, Prakash S.
CS Department of Microbiology, Barkatullah University, Bhopal, M.P., 462 026, India
chauhan_vinaysingh@hotmail.com
SO Current Microbiology, (January 2003) Vol. 46, No. 1, pp. 59-64. print.
CODEN: CUMIDD. ISSN: 0343-8651.
DT Article
LA English
ED Entered STN: 15 Jan 2003
Last Updated on STN: 15 Jan 2003
AB A thalium chloride-resistant (TlClr) mutant strain and a sodium chloride-resistant (NaClr) mutant strain of the diazotrophic cyanobacterium Anabaena variabilis have been isolated by spontaneous and chemical mutagenesis by using TlCl, a potassium (K+) analog, and nitrosoguanidine (NTG), respectively. The TlClr mutant strain was found to be defective in K+ transport and showed resistance against 10 muM TlCl. However, it also showed sensitivity against NaCl (LD50, 50 mM). In contrast, neither wild-type A. variabilis nor its NaClr mutant strain could survive in the presence of 10 muM TlCl and died even at 1 muM TlCl. The TlClr mutant strain exhibited almost negligible K+ uptake. indicating the lack of a K+ uptake system. High K+ uptake was, however, observed in the NaClr mutant strain, reflecting the presence of an active K+ uptake system in this strain. DCMU, an inhibitor of PS II, inhibited the K+ uptake in wild-type A. variabilis and its TlClr and NaCIr mutant strains, suggesting that K+ uptake in these strains is an energy-dependent process and that energy is derived from photophosphorylation. This contention is further supported by the inhibition of K+ uptake under dark conditions. Furthermore, the inhibition of K+ uptake by KCN, DNP, and NaN3 also suggests the involvement of oxidative phosphorylation in the regulation of an active K+ uptake system. The whole-cell protein profile of wild-type A. variabilis and its TlClr and NaClr mutant strains growing in the presence of 50 mM KCl was made in the presence and absence of NaCl. Lack of transporter proteins in TlClr mutant strain suggests that these proteins are essentially required for the active transport and accumulation of K+ and make this strain NaCl sensitive. In contrast, strong expression of the transporter proteins in NaClr mutant strain and its weak expression in wild-type A. variabilis is responsible for their resistance and sensitivity to NaCl, respectively. Therefore, it appears that the increased salt tolerance of the NaClr mutant strain was owing to increased K+ uptake and accumulation, whereas the salt sensitivity of the TlClr mutant strain was owing to the lack of K+ uptake and accumulation.

L2 ANSWER 19 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 13
AN 2003:344024 BIOSIS
DN PREV200300344024
TI Mutational engineering of the cyanobacterium Nostoc muscorum for resistance to growth-inhibitory action of LiCl and NaCl.
AU Bhargava, Santosh [Reprint Author]; Saxena, Rishi K.; Pandey, Pramod K.; Bisen, Prakash S.
CS Department of Microbiology, Barkatullah University, Bhopal, MP, 462026, India
santoshbhargava@hotmail.com
SO Current Microbiology, (July 2003) Vol. 47, No. 1, pp. 5-11. print.

CODEN: CUMIDD. ISSN: 0343-8651.
DT Article
LA English
ED Entered STN: 23 Jul 2003
Last Updated on STN: 23 Jul 2003
AB The effect of NaCl on two vital processes of cyanobacterial metabolism, viz. N2 fixation and oxygenic photosynthesis, was studied in the cyanobacterium Nostoc muscorum grown diazotrophically. An increase in NaCl concentration suppressed the formation of heterocyst and adversely affected the nitrogenase activity in the parent, whereas in Li+-R and Na+-R mutants NaCl stress did not cause any adverse effect. The rate of photosynthetic O2-evolution was also adversely affected by the NaCl stress, but the magnitude was less than that of nitrogenase activity. L-Proline, the well-known osmoprotectant, provided protection to the cyanobacterium against NaCl stress. The parent strain utilized L-proline as a nitrogen source and suppressed heterocyst formation and nitrogenase activity, while mutants showed normal heterocyst frequency and nitrogenase activity. Therefore, it may be that the proline metabolism is altered as a result of mutation. The intracellular levels of proline in the parent were enhanced about threefold in the medium containing 1 mol m-3 proline, while in mutants there was no significant increase in the intracellular level of proline. In the medium containing both NaCl and proline, the intracellular level of proline was enhanced in the parent as well as in both mutant strains. This suggests that the parent strain possessed both normal proline uptake and salt-induced proline uptake systems, whereas the mutant strains were defective in normal proline uptake and had only salt-induced proline uptake. The over-accumulation of proline in the presence of NaCl stress is due either to the loss of proline oxidase activity or to the accumulation of exogenous proline.

L2 ANSWER 20 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 14
AN 2002:562248 BIOSIS
DN PREV200200562248
TI Physiological alterations and regulation of heterocyst and nitrogenase formation in Het- Fix- mutant strain of Anabaena variabilis.
AU Singh, Bhanumati [Reprint author]; Chauhan, Vinay S.; Singh, Surendra; Bisen, Prakash S.
CS Institute of Microbiology and Biotechnology, Barkatullah University, Bhopal, MP, 462 026, India
SO Current Microbiology, (November, 2002) Vol. 45, No. 5, pp. 315-322. print.
CODEN: CUMIDD. ISSN: 0343-8651.
DT Article
LA English
ED Entered STN: 30 Oct 2002
Last Updated on STN: 30 Oct 2002
AB Physiological alterations and regulation of heterocyst and nitrogenase formation have been studied in Het- Fix- mutant strain of diazotrophic cyanobacterium Anabaena variabilis. Het- Fix- mutant strain of A. variabilis has been isolated by N-methyl-N'-nitro-N"-nitrosoguanidine (NTG) mutagenesis and was screened with the penicillin enrichment (500 mug ml-1). Growth, heterocyst differentiation, nitrogenase and glutamine synthetase (biosynthetic and transferase), 14CO2-fixation, nitrate reductase (NR), nitrite reductase (NiR), glucose-6-phosphate dehydrogenase (G6PDH), and isocitrate dehydrogenase (IDH) activities, and NO3-, NO2-, and NH4+ uptake and whole cell protein profile in different metabolic conditions were studied in the Het- Fix- mutant strain taking wild-type A. variabilis as reference. Het- Fix- mutant strain was incapable of assimilating elemental nitrogen (N2) due to its inability to form heterocysts and nitrogenase and this was the reason for its inability to grow in BG-110 medium (free from combined nitrogen). In contrast, wild-type strain grew reasonably well in the absence of combined nitrogen sources and also showed heterocyst differentiation (8.5%) and nitrogenase activity (10.8 etamol C2H4 formed mug-1 Chl a h-1) in N2-medium.

Wild-type strain also exhibited higher NR, NiR, and GS activities compared to its Het- Fix- mutant strain, which may presumably be due to acquisition of high uptake of NO3-, NO2-, and NH2+. Wild-type strain in contrast to its Het- Fix- mutant strain also exhibited high level of G6PDH, IDH, and 14CO2 fixation activities. Low levels of G6PDH and IDH activities in Het- Fix- mutant strain further confirmed the lack of heterocyst differentiation and nitrogenase activity in the Het- Fix- mutant strain. NR, NiR, and GS activities in both the strains were energy-dependent and the energy required is mainly derived from photophosphorylation. Furthermore, it was found that de novo protein synthesis is necessarily required for the activities of NR, NiR, and GS in both wild-type and its Het- Fix- mutant strain.

L2 ANSWER 21 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 15
AN 2002:205993 BIOSIS
DN PREV200200205993
TI Immobilization results in sustained calcium transport in Nostoc calcicola Breb.
AU Pandey, Pramod K. [Reprint author]; Saxena, Rishi K.; Bisen, Prakash S.
CS Institute of Microbiology and Biotechnology, Barkatullah University, Bhopal, MP, 462 026, India
pkp51@hotmail.com
SO Current Microbiology, (March, 2002) Vol. 44, No. 3, pp. 173-177. print.
CODEN: CUMIDD. ISSN: 0343-8651.
DT Article
LA English
ED Entered STN: 20 Mar 2002
Last Updated on STN: 20 Mar 2002
AB The uptake pattern of Ca2+ by the cyanobacterium Nostoc calcicola Breb in its freely suspended and immobilized form is comprised of two distinct phages; (a) rapid uptake for 1st 10 min followed by (b) slower transport at least up to 60 min. Entrapment of cyanobacterial cells in polyvinyl foam always maintained a higher Ca2+ profile over freely suspended cells. Also, the intracellular Ca2+ concentration was three times more in the former under similar experimental conditions. Whereas, illumination supported maximum Ca2+ transport in all the sets, darkness resulted in drastic reduction (90%) of Ca2+ uptake in freely suspended cells and least (15%) in polyvinyl entrapped cyanobacterial cells. Exogenously added ATP (10 muM) on the other hand, enhanced Ca2+ uptake in dark incubated freely suspended cells; ATP at the same concentration failed to bring out any significant enhancement in cation uptake in immobilized cells facing dark exposure. It was observed that these cells were still able to sustain sufficient ATP preserves to drive active transport of Ca2+ even in the dark. Furthermore, the immobilized cells exhibited remarkable Ca2+ transport rate even at the age of 20 and 50 days at which its free living counterpart took up insignificant Ca2+. These findings suggest the improved metabolic efficiency of polyvinyl foam entrapped cells over freely suspended cells in terms of Ca2+ accumulation and its possible use as a bioreactor for metal accumulation/removal in repetitive cycles without any measurable loss in cell biomass.

L2 ANSWER 22 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 16
AN 2001:482679 BIOSIS
DN PREV200100482679
TI Isolation and partial characterization of Het- Fix- mutant strain of the diazotrophic cyanobacterium Anabaena variabilis showing chromatic adaptation.
AU Singh, Bhanumati; Chauhan, Vinay S.; Singh, Surendra; Bisen, Prakash S. [Reprint author]
CS Institute of Microbiology and Biotechnology, Barkatullah University, Bhopal, 462 026, India

SO Current Microbiology, (October, 2001) Vol. 43, No. 4, pp. 265-270. print.
CODEN: CUMIDD. ISSN: 0343-8651.
DT Article
LA English
ED Entered STN: 17 Oct 2001
Last Updated on STN: 23 Feb 2002
AB We propose a model to describe the changes taking place in biochemical processes/events to explain the development of heterocyst and nitrogenase in a diazotrophic cyanobacterium Anabaena variabilis. For this purpose, a mutant strain of A. variabilis lacking heterocyst differentiation and incapable of growth with dinitrogen as the sole source of nitrogen has been isolated after nitrosoguanidine (NTG) mutagenesis and selection by penicillin enrichment. The mutant strain (Het- Fix-) thus isolated has morphological variation and was incapable of reducing acetylene under anaerobic conditions, indicating its mutational loss of the process of nitrogen fixation. The Het- Fix- mutant strain had reduced glutamine synthetase (transferase) activity compared with its wild-type counterpart, suggesting a link between nif gene expression and the expression of gln A, the structural gene of GS. The Het- Fix- mutant strain compared with its wild-type strain also had an extremely high level of phycobiliprotein and a low level of carotenoids. Furthermore, the coiling of vegetative filaments in the Het- Fix- mutant strain, which reduced the surface area to be exposed to light, was a direct indication of the chromatic adaptation, because the mutant strain was found to be photosensitive, showing bleaching of the cells under high light intensity.

L2 ANSWER 23 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 17
AN 2001:232726 BIOSIS
DN PREV200100232726
TI Regulation of sodium influx in the NaCl-resistant (NaClr) mutant strain of the cyanobacterium Anabaena variabilis.
AU Chauhan, Vinay S.; Singh, Bhanumati; Singh, Surendra; Bisen, Prakash S. [Reprint author]
CS Institute of Microbiology and Biotechnology, Barkatullah University, Bhopal, MP, 462 026, India
SO Current Microbiology, (February, 2001) Vol. 42, No. 2, pp. 100-105. print.
CODEN: CUMIDD. ISSN: 0343-8651.
DT Article
LA English
ED Entered STN: 16 May 2001
Last Updated on STN: 18 Feb 2002
AB A NaClr mutant of the diazotrophic cyanobacterium Anabaena variabilis has been isolated by NTG mutagenesis and selection for NaCl resistance. The NaClr strain has been characterized with respect to its mechanism of NaCl tolerance and regulation of Na+ influx. NaClr strain exhibits low Na+ influx, accumulated high level of glycine betaine as a compatible solute, and persistent synthesis of SSPs at a higher rate than its wild-type counterpart. DCMU, an inhibitor of PS-II, inhibited Na+ influx, suggesting that Na+ influx is an energy-dependent process and that the energy is derived from photophosphorylation. This contention is further supported by the inhibition of Na+ influx under dark conditions. The inhibition of Na+ influx by KCN, DNP, NaN3 also supports the involvement of oxidative phosphorylation in the regulation of active Na+ influx. Thus, it appears that the synthesis of SSPs, accumulation of compatible solutes, and exhibition of low Na+ influx in the NaClr strain made this organism NaCl tolerant.

L2 ANSWER 24 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 18
AN 2000:514982 BIOSIS
DN PREV200000514982
TI Isolation and characterization of the thylakoid membranes from the NaCl-resistant (NaClr) mutant strain of the cyanobacterium Anabaena

variabilis.
AU Chauhan, Vinay S.; Singh, Bhanumati; Singh, Surendra; Gour, Rajesh K.; Bisen, Prakash S. [Reprint author]
CS Institute of Microbiology and Biotechnology, Barkatullah University, Bhopal, MP, 462 026, India
SO Current Microbiology, (November, 2000) Vol. 41, No. 5, pp. 321-327. print. CODEN: CUMIDD. ISSN: 0343-8651.
DT Article
LA English
ED Entered STN: 29 Nov 2000
Last Updated on STN: 11 Jan 2002
AB NaCl-induced changes in the thylakoid membrane of wild-type Anabaena variabilis and its NaClr mutant strain have been studied. Biochemical characterization of the thylakoid membrane was done by taking its absorption and fluorescence spectra at different wavelength. The thylakoid membranes of both strains were isolated by mechanical disruption of the freeze-dried and lysozyme-treated cells, followed by differential and density gradient centrifugation. The light absorption spectra of the thylakoid membrane showed three and two peaks in NaClr mutant strain and its wild-type counterpart respectively at wavelengths of 400-850 nm. These peaks revealed that the thylakoid membrane contains a large amount of carotenoid and chlorophyll a. Fluorescence emission spectra of thylakoid membrane of NaClr mutant and its wild-type strain at excitation wavelength of 335 nm showed two different peaks, one at 340 nm and the other at 663 nm respectively. The light absorption and fluorescence spectra of the thylakoid membrane also revealed that the membrane contained carotenoid pigment, chlorophyll (Chl) a, and a pigment with an emission peak at 335 nm. The HPLC analysis of the pigments of the thylakoid membrane indicates that the NaClr mutant strain under NaCl stress contained an additional peak for the carotenoid pigment, which was lacking in its wild-type counterpart. The major peak in thylakoid membrane was that of echinenone and beta-carotene. Whereas the polypeptide composition of thylakoid membrane differed in the wild-type and its NaClr mutant strain, no difference in the cell wall protein pattern was observed in both strains. The thylakoid membrane of NaClr mutant strain contained two additional protein bands that were absent in its wild-type counterpart. The thylakoid membrane of the wild-type and its NaClr mutant strain also showed morphological variations under NaCl stress.

L2 ANSWER 25 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 19
AN 1999:490070 BIOSIS
DN PREV199900490070
TI Energy-dependent Ca2+ efflux from the cells of Nostoc calcicola Breb: Role of modifying factors.
AU Pandey, Pramod K.; Gour, Rajesh K.; Bisen, Prakash S. [Reprint author]
CS Institute of Microbiology and Biotechnology, Barkatullah University, Bhopal, 462 026 (M.P.), India
SO Current Microbiology, (Nov., 1999) Vol. 39, No. 5, pp. 254-258. print. CODEN: CUMIDD. ISSN: 0343-8651.
DT Article
LA English
ED Entered STN: 16 Nov 1999
Last Updated on STN: 16 Nov 1999
AB Energy-dependent Ca2+ efflux and its regulation from the diazotrophic cyanobacterium Nostoc calcicola Breb has been investigated. Like Ca2+ uptake, Ca2+ efflux pattern also reflected a rapid phase for the first 10 min followed by a slower one lasting up to 1 h with a total of 80 nmol Ca2+ mg-1 protein (31% of the Ca2+ concentration taken in by such cells at 1 h). Ca2+ efflux kinetics remained hyperbolic with a Km of 1.9 mM and Vmax 5.5 nmol mg-1 protein min-1. Ca2+ efflux to a major extent depended on photosynthetic energy generation as the cells facing dark incubation

and addition of 3-(3,4-dichlorophenyl)-1-dimethyl urea (DCMU) to light-grown cells showed significant reduction in Ca2+ extrusion. The strong inhibition in Ca2+ efflux by addition of metabolic inhibitors like carbonyl cyanide-p-nitrofluoromethoxyl-phenyl hydrazone (FCCP) and N,N,-dicyclohexylcarbo-diimide (DCCD) suggested the vital role of membrane potential and ATP hydrolysis in drivingthis process. Verapamil (Ca2+ antagonist) had insignificant effect on Ca2+ efflux, whereas the addition of Calmodulin antagonists like trifluoroperazine, W-7 and compound 48/80 resulted in the enhancement in Ca2+ efflux over control sets, thus suggesting that this increase may be owing to the additional extrusion of intracellular free calcium that was unable to bind with calmodulin in the presence of these antagonists.

L2 ANSWER 26 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 20
AN 1998:491816 BIOSIS
DN PREV199800491816
TI Piriformospora indica, gen. et sp. nov., a new root-colonizing fungus.
AU Verma, Savita; Varma, Ajit; Rexer, Karl-Heinz; Hassel, Annette; Kost, Gerhard; Sarbhoy, Ashok; Bisen, Prakash; Buetehorn, Britta; Franken, Philipp [Reprint author]
CS Max-Planck-Inst. Terrestrische Mikrobiol., Fachbereichs Biol., Philipps-Univ., Karl-von-Frisch-Str., 35043 Marburg, Germany
SO Mycologia, (Sept.-Oct., 1998) Vol. 90, No. 5, pp. 896-903. print. CODEN: MYCOAE. ISSN: 0027-5514.
DT Article
LA English
ED Entered STN: 18 Nov 1998
Last Updated on STN: 18 Nov 1998
AB A new fungus isolate was discovered in an arbuscular mycorrhizal fungal spore from a desert soil in India. It could easily be cultivated on various synthetic media, and formed pear-shaped chlamydospores. Inoculation of maize showed that the fungus colonized the root cortex. Since it did not resemble any known fungus based on morphology and ultrastructure, a new genus was described. For its characteristic spore structure the isolate was named Piriformospora indica. Electron microscopy revealed the presence of typical dolipores with continuous parenthesomes, which indicated that P. indica belongs to the Hymenomycetes (Basidiomycota). DNA was extracted and the 5' end of the 18S rRNA was amplified and sequenced. Comparison with sequences from the Genbank data base indicated that P. indica is related to the Rhizoctonia group.

L2 ANSWER 27 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 21
AN 1995:77528 BIOSIS
DN PREV199598091828
TI Elements interrupting nitrogen fixation genes in cyanobacteria: Presence and absence of a nifD element in clones of Nostoc sp. strain Mac.
AU Meeks, John C. [Reprint author]; Campbell, Elsie Lin; Bisen, Prakash S.
CS Sct. Microbiol., Div. Biol. Sci., Univ. Calif., Davis, CA 95616, USA
SO Microbiology (Reading), (1994) Vol. 140, No. 12, pp. 3225-3232. ISSN: 1350-0872.
DT Article
LA English
ED Entered STN: 22 Feb 1995
Last Updated on STN: 27 Apr 1995
AB Nostoc sp. strain Mac is capable of microaerobic, but not aerobic, nitrogen fixation (Fox-). Nostoc Mac grows as long, relatively straight, filaments that are well dispersed in the culture medium. However, spontaneously-arising revertant strains selected for aerobic nitrogen fixation (Fox+) all grow as coiled filaments that associate in macroscopic clumps or balls of varying dimensions. DNA restriction fragment length polymorphism, using nitrogenase (nif) structural genes as probes,

established identity between revertants and the parental culture. Mapping of the fragments and lack of hybridization to specific probes indicated the absence of a DNA sequence interrupting the nifD gene in one Fox+ revertant. Such a nifD element is assumed to be present in essentially all heterocyst-forming cyanobacteria. Only one clone out of 223 Fox- and Fox+ Nostoc Mac clones surveyed lacked the nifD element, indicating that loss of the element is a rare event. The nifD element is present in the same location in the genome of Nostoc Mac as it is in all other heterocyst-forming cyanobacteria analysed. No phenotypic differences could be detected between two Fox+ clones containing or lacking the nifD element, including repression and derepression of nitrogen fixation in response to the presence or absence of combined nitrogen. We suspect that retention of the nifD element in vegetative cells of heterocyst-forming cyanobacteria is a consequence of selective pressure, although such selective conditions in laboratory cultures have not been identified.

L2 ANSWER 28 OF 33 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
AN 1994:417111 BIOSIS
DN PREV199497430111
TI Modulation of MHC class-II antigen expression on antigen presenting cells of leprosy patients by Mycobacterium leprae.
AU Krovvidi, Siva Sai S. R. [Reprint author]; Gupta, Anushree [Reprint author]; Misra, Radhey Shyam; Bisen, Prakash S.; Prasad, H. Krisna [Reprint author]
CS Dep. Biotechnol., All-India Inst. Med. Sci., New Delhi, India
SO International Journal of Leprosy and Other Mycobacterial Diseases, (1993) Vol. 61, No. 4 SUPPL., pp. 89A.
Meeting Info.: Fourteenth International Leprosy Congress. Orlando, Florida, USA. August 29-September 4, 1993.
CODEN: IJLEAG. ISSN: 0148-916X.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 3 Oct 1994
Last Updated on STN: 3 Oct 1994

L2 ANSWER 29 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1988:3172 CAPLUS
DN 108:3172
TI Genetic control of amino acid transport in Aspergillus nidulans: evidence for polymeric amino acid permease
AU Tiwary, Bhupendra Nath; Bisen, Prakash S.; Sinha, Umakant
CS Dep. Microbiol., Bhopal Univ., Bhopal, India
SO Current Microbiology (1987), 15(6), 305-11
CODEN: CUMIDD; ISSN: 0343-8651
DT Journal
LA English
AB On a medium containing either acetate as the sole source of carbon or arginine as the sole source of nitrogen and the two amino acid analogs, p-fluorophenylalanine (FPA) and ethionine, eight FPA-resistant mutants were selected. Dominance tests in heterozygous diploids showed that 3 out of 8 are recessive, 1 semidominant, and 4 dominant to their wild-type alleles. Mutants were characterized by the nature of amino acid transport detected on the basis of amino acid utilization patterns. Six new loci identified after genetic anal. were located on two linkage groups: three each on linkage groups I and II. Recombinants between pairs of loci fpaD and fpaQ, and fpaK and fpaP, were found to be sensitive to FPA. The pattern of segregation of resistant markers and amino acid utilization were considered to characterize the specificity of transport mutants.

L2 ANSWER 30 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1987:528358 CAPLUS
DN 107:128358

TI Demonstration of an altered phenylalanyl-tRNA synthetase in an analog-resistant mutant of Aspergillus nidulans
AU Tiwary, Bhupendra N.; Bisen, Prakash S.; Sinha, Umakant
CS Dep. Bot., Patna Univ., Patna, 800005, India
SO Molecular and General Genetics (1987), 209(1), 164-9
CODEN: MGGEAE; ISSN: 0026-8925
DT Journal
LA English
AB A new class of p-fluorophenylalanine (FPA)-resistant mutant of A. nidulans was isolated by using a phenA strain as the wild type and optimizing the conditions of growth. All four spontaneous mutants selected on a medium containing FPA were recessive to their wild-type alleles in heterozygous diploids. Complementation analyses and linkage data showed that they were allelic and mapped at a single locus (fpaU) in the facA-riboD interval on the right arm of linkage group V. Partial purification and characterization of Phe-tRNA synthetase from wild-type and mutant strains revealed that the mutant enzyme had a greatly reduced ability to activate the analog. It is suggested that mutation in the fpaU gene brings about a structural alteration in the Phe-tRNA synthetase.

L2 ANSWER 31 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1987:420645 CAPLUS
DN 107:20645
TI Effect of cyanophage N-1 infection on the synthesis and stability of Nostoc muscorum nitrate reductase
AU Bagchi, Suvendra Nath; Kaloya, Paramjeet; Bisen, Prakash Singh
CS Dep. Post Grad. Stud. Res. Biol. Sci., Rani Durgavati Vishwavidyalaya, Jabalpur, India
SO Current Microbiology (1987), 15(2), 61-5
CODEN: CUMIDD; ISSN: 0343-8651
DT Journal
LA English
AB The control operative on the nitrate reductase enzyme system of host cyanobacterium N. muscorum was studied after being infected with the cyanophage N-1. Phage infection lifted the host nitrate reductase activity level via accelerating the enzyme synthesis. The phage-mediated increase in the molybdenum cofactor synthesis was a major contributing factor for apparent elevated nitrate reductase level of the host. This process was inhibited in the presence of erythromycin and tungsten, the inhibitors of protein synthesis and new nitrate reductase synthesis, resp. While the performed nitrate reductase of healthy cyanobacterium was inhibited by hydrogen peroxide, an oxidizing photosynthetic product, the same enzyme of infected cells remained virtually insensitive to this inhibitor. These data suggest involvement of new nitrate reductase synthesis and its resistance to oxidative inactivation as joint factors controlling the characteristic high enzyme level of host cyanobacterium.

L2 ANSWER 32 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1977:564393 CAPLUS
DN 87:164393
OREF 87:25963a,25966a
TI Changes in the ascorbic acid contents of some cultivars of stored apples infected by Aspergillus niger and Alternaria tenuis
AU Agarwal, Ganga P.; Bisen, Prakash S.
CS Dep. Postgrad. Stud. Res. Bot., Univ. Jabalpur, Jabalpur, India
SO Phytopathologia Mediterranea (1976), 15(2-3), 125-7
CODEN: PYMDAU; ISSN: 0031-9465
DT Journal
LA English
AB Ascorbic acid [50-81-7] levels were highest in apple cultivars Maharaja and Delicious followed by American, Kesari, and Edward (3.9, 2.32, 2.20, 2.16, and 2 mg/100 g, resp.). When these fruits were inoculated with Aspergillus niger or Alternaria tenuis, and stored at 26° in a moist chamber for 12 days, ascorbic acid levels decreased. With

Aspergillus niger, none of the apples contained any ascorbic acid on day 9. With Alternaria tenuis only Maharaja had any ascorbic acid on day 12. The loss in noninoculated apples was insignificant. Losses in the inoculated fruits were greatest in the 1st 3 days.

L2 ANSWER 33 OF 33 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1977:68516 CAPLUS
DN 86:68516
OREF 86:10872h,10873a
TI Post-infection changes in apples due to Aspergillus niger van Tiegh. II. Organic acids
AU Agarwal, Ganga P.; Bisen, Prakash S.
CS Dep. Postgrad. Stud. Res. Bot., Univ. Jabalpur, Jabalpur, India
SO Phytopathologia Mediterranea (1975), 14(2-3), 125-6
CODEN: PYMDAU; ISSN: 0031-9465
DT Journal
LA English
AB Carboxylic acids were analyzed in healthy and Aspergillus niger-infected apples of less susceptible Edward and suceptible Kesari cultivars. The major acid composition was malic, citric, and quinic acids in both cultivars. Malic acid gradually decreased in diseased tissues, whereas quinic and citric acids increased. Two unidentified acids were also detected in healthy and diseased apples of both cultivars. Shikimic acid was detected in infected Kesari (susceptible), but not in Edward (less susceptible), from day 6. The accumulation of shikimic acid may have a direct relation with susceptibility.

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=> e tiwary ram pramod/au
E1             2      TIWARY RAJANI K/AU
E2             1      TIWARY RAJIV/AU
E3             1 --> TIWARY RAM PRAMOD/AU
E4             1      TIWARY RAMESH/AU
E5             1      TIWARY ROMILA/AU
E6             9      TIWARY S/AU
E7             1      TIWARY S D/AU
E8             1      TIWARY S H/AU
E9            26      TIWARY S K/AU
E10            1      TIWARY S L/AU
E11           65      TIWARY S N/AU
E12            5      TIWARY S P/AU

=> s e3
L3             1 "TIWARY RAM PRAMOD"/AU

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y

L3   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2005:962506  CAPLUS
DN   143:225616
TI   A diagnostic kit for detecting pulmonary and extra pulmonary
IN   Bisen, Prakash Singh; Tiwary, Ram Pramod
PA   Department of Biotechnology, India; Madhav Institute of Technology and
     Science
SO   PCT Int. Appl., 16 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    --------------------     --------
PI   WO 2005080987         A1    20050901    WO 2005-IN63             20050221
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
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CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG

EP 1716417 A1 20061102 EP 2005-718967 20050221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS

JP 2007523342 T 20070816 JP 2006-553765 20050221

PRAI IN 2004-DE226 A 20040219

WO 2005-IN63 W 20050221

AB A diagnostic kit for detecting pulmonary and extra pulmonary tuberculosis comprising a test card "TB Screen" coated with a hydrophobic material, antigen suspension, pos. and neg. control.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> s detect?/ti and pulmonary/ti and tuberculosis/ti
L4          693 DETECT?/TI AND PULMONARY/TI AND TUBERCULOSIS/TI

=> s l4 and immunoassay
L5           22 L4 AND IMMUNOASSAY

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6           10 DUP REM L5 (12 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 10 ANSWERS - CONTINUE? Y/(N):y
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L6 ANSWER 1 OF 10 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 1
AN 2006:439832 BIOSIS
DN PREV200600440932
TI A novel erythrocyte-based immunoassay for simultaneous detection of both antimycobacterial antibody response and mycobacterial antigen in human serum samples of pulmonary tuberculosis and a control group of patients using 'a single probe'.
AU Katti, Muralidhar K. [Reprint Author]; Azeem, Mohammed
CS Sree Chitra Tirunal Inst Med Sci and Technol, NFQ, Dept Microbiol, Immunol Lab, Poonthi Rd,B-15, Thiruvananthapuram 695011, Kerala, India
mkk@sctimst.ker.nic.in
SO FEMS Immunology and Medical Microbiology, (JUN 2006) Vol. 47, No. 1, pp. 134-137.
ISSN: 0928-8244.
DT Article
LA English
ED Entered STN: 6 Sep 2006
Last Updated on STN: 6 Sep 2006
AB A modified passive hemagglutination using double aldehyde stabilized cells (tanned sheep erythrocytes treated with glutaraldehyde and pyruvic aldehyde) was evaluated for detection of both antimycobacterial antibodies and circulating mycobacterial antigens simultaneously in human serum samples from patients with pulmonary tuberculosis (n=40) and a control group (n=44). Double aldehyde stabilized cells sensitized with an optimum dose of 200 mu g mL(-1) of sonicate extract of Mycobacterium tuberculosis

antigens was used as single probe to detect both antibodies and antigen, respectively, by passive hemagglutination and passive hemagglutination inhibition. The sensitivity limit of passive hemagglutination inhibition was determined to be 280 ng mL(-1) using a dose-response curve. Sensitivity of passive hemagglutination and passive hemagglutination inhibition, respectively, was 90% and 52.5%, and specificity was 91% and 100%. Although passive hemagglutination and passive hemagglutination inhibition need further evaluation, these erythrocyte-based immunoassays are potentially advantageous, especially as double aldehyde stabilized sensitized cells could be used as a single probe for detection of both antibodies and antigen. In addition, erythrocyte-based immunoassays are rapid, simple and cost-effective with a high degree of sensitivity.

L6 ANSWER 2 OF 10 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 2
AN 2005:388019 BIOSIS
DN PREV200510175231
TI Application of a circulating antigen detection immunoassay for laboratory diagnosis of extra-pulmonary and pulmonary tuberculosis.
AU Attallah, Abdelfattah M. [Reprint Author]; Osman, Sanaa; Saad, Amr; Omran, Mohamed; Ismail, Hisham; Ibrahim, Gellan; Abo-Naglla, Ahmed
CS Biotechnol Res Ctr, R and D Dept, POB 14,23 July St,Ind Zone, New Damietta 34517, Egypt
amattallah@hotmail.com
SO Clinica Chimica Acta, (JUN 2005) Vol. 356, No. 1-2, pp. 58-66.
CODEN: CCATAR. ISSN: 0009-8981.
DT Article
LA English
ED Entered STN: 28 Sep 2005
Last Updated on STN: 28 Sep 2005
AB Background: Diagnosis of extra-pulmonary tuberculosis is often difficult to establish using standard methods. Recently, a 55-kDa mycobacterial antigen was identified in sera of individuals with pulmonary TB using a simple and rapid dot-ELISA based on monoclonal antibody (TB-55 mAb). Here, we have evaluated the application of the dot-ELISA for the detection of target antigen in sera of individuals with extra-pulmonary TB.Methods: The Western blot and indirect immunoperoxidase staining was used to identify the target TB antigen using the TB-55 mAb. The dot-ELISA was used to detect the target antigen in serum samples.Results: The target antigen was identified at 55-kDa molecular weight in serum, ascitic fluid and CSF samples from individuals with extra-pulmonary TB. The purified antigen from these samples showed similar biochemical properties to the previously described antigen. The target antigen was localized in areas without caseous necrosis in lymph tissues. The dot-ELISA detected the target antigen in 90% sera of individuals with extra-pulmonary TB and in 87% sera of individuals with pulmonary TB with a specificity of 97% among control individuals.Conclusion: The detection of the 55-kDa antigen using dot-ELISA can be routinely employed to support clinical diagnosis of extra-pulmonary TB and pulmonary TB.

L6 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:1047627 CAPLUS
DN 142:216807
TI Improved diagnosis of pulmonary tuberculosis by detection of free and immune complex-bound anti-30kDa antibodies
AU Raja, Alamelu; Uma Devi, K. R.; Ramalingam, B.; Brennan, Patrick J.
CS Department of Immunology, Tuberculosis Research Centre (ICMR), Chennai, India
SO Diagnostic Microbiology and Infectious Disease (2004), 50(4), 253-259
CODEN: DMIDDZ; ISSN: 0732-8893
PB Elsevier Inc.
DT Journal

LA English
AB The 30kDa secreted antigen of Mycobacterium tuberculosis was purified to homogeneity by serial chromatog., and enzyme linked immunosorbent assay (ELISA) was used to evaluate its diagnostic value in patients with pulmonary tuberculosis. The Ig antibodies G, A, and M were estimated in the two groups: patients who were smear- and culture-pos. (S+C+) for pulmonary tuberculosis and normal healthy subjects (NHS). Sensitivity of 67.4%, 14.8%, and 14.3%, with the specificity of 99%, 96.7%, and 92% were obtained for the 3 isotypes resp. Combination of the results of IgG and IgA increased the sensitivity to 71%, with 97% specificity. Polyethylene glycol precipitation of the circulating immune complexes (CIC) in sera was carried out. The CIC bound antibodies offered a sensitivity of 92.5%, 85.4%, and 68.7%, resp. for the S+C+, S-C+, and S-C- patients, while the specificity was 96.6%. Thus CIC-bound antibodies promise to be a better diagnostic tool in the detection of tuberculosis.
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 10 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 3
AN 2003:215173 BIOSIS
DN PREV200300215173
TI Rapid and simple detection of a Mycobacterium tuberculosis circulating antigen in serum using dot-ELISA for field diagnosis of pulmonary tuberculosis.
AU Attallah, Abdelfattah M. [Reprint Author]; Malak, Camelia A. Abdel; Ismail, Hisham; El-Saggan, Abeer H.; Omran, Mohamed M.; Tabll, Ashraf A.
CS Biotechnology Research Center, 23 July St., Industrial Zone, P.O. Box 14, New Damietta City, Egypt
amattallah@hotmail.com
SO Journal of Immunoassay & Immunochemistry, (February 2003) Vol. 24, No. 1, pp. 73-87. print.
ISSN: 1532-1819 (ISSN print).
DT Article
LA English
ED Entered STN: 30 Apr 2003
Last Updated on STN: 30 Apr 2003
AB Tuberculosis (TB) has re-emerged as a major health problem worldwide. Developing an easy, inexpensive immunodiagnostic test is extremely important for TB diagnosis, especially in developing countries. A target mycobacterial circulating antigen of 55-kDa molecular weight was identified in sera from confirmed Mycobacterium tuberculosis infected individuals by using Western blotting based on a specific mouse IgG anti-M. tuberculosis monoclonal antibody (TB-55 mAb). No bands were identified in sera of healthy individuals. The target TB antigen was isolated and characterized as a protein. It consists of 15 amino acids; 24.6% of the amino acids are hydrophobic and 46.4% are hydrophilic. A dot-ELISA format, based on TB-55 mAb, was developed for the direct demonstration of the 55-kDd TB antigen in serum samples of pulmonary TB patients. The technical aspects of the developed dot-ELISA are simple, rapid (5 min), and reproducible, as well as sensitive (87%) and specific (93%). Using the more sensitive immunoassay; Western blot, the 55-kDa TB antigen was detected in all (100%) sera that have been shown false negative by dot-ELISA, as well as in true positive sera. In conclusion, we have developed a simple and rapid immunoassay for the direct detection of a circulating mycobacterial antigen in sera of TB infected individuals and, therefore, the developed assay can be applied for laboratory and field diagnosis of TB infection in developing countries.

L6 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:744889 CAPLUS
DN 138:37632

TI Evaluation of an in-house-developed radioassay kit for antibody detection in cases of pulmonary tuberculosis and tuberculous meningitis
AU Kameswaran, M.; Shetty, K.; Ray, M. K.; Jaleel, M. A.; Kadival, G. V.
CS Laboratory Nuclear Medicine Section, Bhabha Atomic Research Centre, K.E.M. Hospital, Mumbai, 400012, India
SO Clinical and Diagnostic Laboratory Immunology (2002), 9(5), 987-993
CODEN: CDIMEN; ISSN: 1071-412X
PB American Society for Microbiology
DT Journal
LA English
AB A radioassay for the detection of antitubercular antibody has been developed. The technique involves the addition of 125I-labeled Mycobacterium tuberculosis antigen as a tracer, diluted clin. sample (serum or cerebrospinal fluid [CSF]), and heat-inactivated Staphylococcus aureus to capture the antibody, incubation for 4 h, and quantitation of the amount of antibody present in the sample. A total of 330 serum samples from patients with pulmonary tuberculosis and 138 control serum samples from individuals who were vaccinated with M. bovis BCG and from patients with pulmonary disorders of nontubercular origin were analyzed. Also, 26 CSF samples from patients with tuberculous meningitis and 24 CSF samples as controls from patients with central nervous system disorders of nontuberculous origin were analyzed. Sensitivities of 80 and 73% were observed for patients with pulmonary tuberculosis and tuberculous meningitis, resp., and specificities of 90 and 88% were seen for the two groups of patients, resp. The sensitivity was lower, however, for human immunodeficiency virus-infected patients coinfected with M. tuberculosis. The control population could be differentiated from the patient population. This assay is rapid and user friendly and, with its good sensitivity and specificity, should benefit the population by providing diagnoses early in the course of disease and, hence, permit the early administration of appropriate chemotherapy.
RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 10 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 4
AN 1998:496952 BIOSIS
DN PREV199800496952
TI Standardization of a dot blot immunoassay for antigen detection in cases of pulmonary tuberculosis and its evaluation with respect to the conventional techniques.
AU Deodhar, Leilarani; Gogate, Alka [Reprint author]; Padhi, R. C.; Desai, C. R.
CS LTM Med. Coll. Sion, Mumbai 400022, India
SO Indian Journal of Medical Research, (Sept., 1998) Vol. 108, No. SEPT., pp. 75-79. print.
ISSN: 0971-5916.
DT Article
LA English
ED Entered STN: 18 Nov 1998
Last Updated on STN: 18 Nov 1998
AB A simple dot (blot) ELISA test for detecting tubercular antigen in sputum samples of patients of pulmonary tuberculosis has been standardized using nitrocellulose paper. The sensitivity of the assay is 20 ng/ml. The cut-off value was 80 ng/ml. Of the 1042 patients in the study group, the percentage positivity by smear and culture was 54.51 and 57.93 per cent respectively; 68.7 per cent of the ELISA positives were confirmed by smear. The dot blot ELISA could be used as a rapid and specific test as it not only picked up 88.88 per cent of the smear positive, culture positive cases but also 81.89 per cent of the smear negative, culture positive cases. If the results of smear and dot blot ELISA are combined, 91.08 per cent of the culture positive cases were picked up as positive. If such a noninvasive test is commercialized and used in conjunction with

smear, the pick up rate of tuberculosis cases will improve considerably.

L6 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1998:347217 CAPLUS
DN 129:187712
TI Detection of serum lipoarabinomannose-IgG level with dot- ELISA for pulmonary tuberculosis diagnosis
AU Wang, Yuzhu; Gu, Guozhong; Liu, Xiying; An, Yansheng; Zhao, Mingwu
CS Department of Pulmonary Diseases, The Third Hospital, Beijing Medical University, Beijing, 100083, Peop. Rep. China
SO Beijing Yike Daxue Xuebao (1997), 29(6), 533-534
CODEN: BYDXEV; ISSN: 1000-1530
PB Beijing Yike Daxue
DT Journal
LA Chinese
AB A new method, serum lipoarabinomannose-IgG (LAM-IgG) detection with ELISA, for the diagnosis of lung tuberculosis was evaluated. Dot-ELISA method was used to detect serum LAM-IgG in 175 subjects who were divided into four groups: 93 with active lung tuberculosis, 30 with stable lung tuberculosis, 31 with diseases other than tuberculosis and 21 healthy controls. The pos. rate was 70.97%, 66.67%, 6.45%, and 0% in the four groups above, resp. IgG detected with ELISA is a valuable method for lung tuberculosis diagnosis.

L6 ANSWER 8 OF 10 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 5
AN 1997:304728 BIOSIS
DN PREV199799612531
TI Detection of mycobacterium tuberculosis DNA in blood of patients with acute pulmonary tuberculosis by polymerase chain reaction and non-isotopic hybridisation assay.
AU Del Prete, Raffaele [Reprint author]; Mosca, Adriana; D'Alagni, Marina; Sabato, Roberto; Picca, Vito; Miragliotta, Giuseppe
CS Inst. Med. Microbiol., Univ. Bari, Piazza G. Cesare, 4 I-70124 Bari, Italy
SO Journal of Medical Microbiology, (1997) Vol. 46, No. 6, pp. 495-500.
CODEN: JMMIAV. ISSN: 0022-2615.
DT Article
LA English
ED Entered STN: 26 Jul 1997
Last Updated on STN: 26 Jul 1997
AB The detection of Mycobacterium tuberculosis DNA in peripheral blood mononuclear cells (PBMC) by PCR and non-isotopic hybridization assay was evaluated for the laboratory diagnosis of pulmonary M. tuberculosis infection. The PCR technique was based on the presence of IS6110, a DNA sequence specific for M. tuberculosis, and performed on PBMC from 30 patients belonging to the fifth group of the American Thoracic Society (ATS) classification of tuberculosis. The identification of amplification products was confirmed after electrophoresis by hybridization with a non-isotopic probe in a DNA enzyme immunoassay (DEIA). Of the 30 blood samples studied by the PCR-DEIA technique, 26 gave positive results and four gave negative results. Blood samples from 30 subjects in a control group were negative by this technique. The data suggest that PCR-DEIA of blood may provide a sensitive, specific and useful means of diagnosing mycobacterial infection.

L6 ANSWER 9 OF 10 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 6
AN 1992:434088 BIOSIS
DN PREV199294086213; BA94:86213
TI ANTITUBERCULOSIS ANTIBODIES DETECTED BY ENZYME IMMUNOASSAY IN PULMONARY TUBERCULOSIS PATIENTS.
AU LITVINOV V I [Reprint author]; CHUKANOV V I; TUKHTAEV M T; BAENSKII A V
CS CENT RES INST TUBERC, MINIST HEALTH RUSS, MOSCOW, RUSS

SO Problemy Tuberkuleza, (1991) No. 11, pp. 67-69.
CODEN: PRTUAX. ISSN: 0032-9533.
DT Article
FS BA
LA RUSSIAN
ED Entered STN: 22 Sep 1992
Last Updated on STN: 22 Sep 1992
AB The method of indirect solid-phase enzyme immunoassay (EIA) was used to detect antibodies in the sera of 166 pulmonary tuberculosis patients and 56 healthy donors. A preparation with a mol. mass of 38-42 kD was used as an antigen which was isolated from the mycobacteria H37Rv by a consecutive separation under high pressure, extraction of KCl cellular membranes and gel-filtration in the gel Toyopearl HW 55F. Antituberculous antibodies (AtAb) were detected by the EIA method in 94% of pulmonary tuberculosis patients which was much higher as compared to the same parameter in healthy subjects (10.7%). Hence. AtAb detection by this method can serve as an additional criterion for tuberculosis diagnosis.. The detection rate and AtAb level are higher in fibrocavernous tuberculosis than those in infiltrative tuberculosis. The AtAb detection rate is higher in manifested intoxication than in moderate one or its absence. AtAb are more often detected in chronic than in newly diagnosed tuberculosis, in the disseminated forms than in the limited forms, in pronounced infiltration in the lungs as compared to a moderate form, and also in patients with bacillary excretion than in those whose sputum had no Mycobacterium tuberculosis.

L6 ANSWER 10 OF 10 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
AN 1992:235258 BIOSIS
DN PREV199293123283; BA93:123283
TI DETECTION OF ANTIBODIES TO THE TUBERCULOSIS PATHOGEN IN PATIENTS WITH PULMONARY DISEASES BY ENZYME IMMUNOASSAY.
AU EVDOKIMOV V N [Reprint author]
CS NOVGOROD OBL ANTITUBERC DISPENSARY, NOVGOROD, RUSSIA
SO Problemy Tuberkuleza, (1991) No. 8, pp. 67-68.
CODEN: PRTUAX. ISSN: 0032-9533.
DT Article
FS BA
LA RUSSIAN
ED Entered STN: 10 May 1992
Last Updated on STN: 10 May 1992
AB Diagnostic enzyme immunoassay kits were used for the examination of parallel tests of venous and capillary blood in 43 patients with nonspecific pulmonary diseases for the presence of antibodies to tuberculosis pathogen. The method of parallel tests has revealed that disregarding the site of blood collection (vein, finger) the EIA results are identical. Analysis sensitivity in tuberculosis patients varies within 30 and 86% in relation to the clinical activity of a tuberculosis process. Analysis specificity in tuberculosis patients is 3.4%.